

**What is claimed is:**

1           1. A method of magnetic transfer for magnetic transferring a layout pattern of  
2 data signal of a master disc for magnetic transfer into a magnetic disc as a  
3 magnetized pattern of the data signal, by overlapping said master disc for magnetic  
4 transfer on a surface of said magnetic disc, and by magnetizing a magnetic film on  
5 said master disc for magnetic transfer, said master disc for magnetic transfer having  
6 said magnetic film formed thereon in a shape of the layout pattern corresponding to  
7 a predetermined data signal,

8           said method comprising the steps of:

9           cleaning said master disc for magnetic transfer by contacting with and  
10 separating a surface whereon said magnetic film is formed, with and from a dummy  
11 disc; and

12           magnetic transferring by overlapping said master disc for magnetic transfer  
13 with said magnetic disc after said step of cleaning.

1           2. The method of magnetic transfer according to claim 1, further comprising  
2 the step of inspection for detecting a defect in said magnetic disc after the magnetic  
3 transfer into said magnetic disc,

4           wherein said step of magnetic transferring is performed again from said  
5 master disc for magnetic transfer into said magnetic disc after performing said step  
6 of cleaning said master disc for magnetic transfer by contacting the surface of said  
7 master disc for magnetic transfer whereon said magnetic film is formed with a

8 dummy disc, when a defect is detected by said step of inspection.

1           3. The method of magnetic transfer according to claim 1, wherein said step of  
2 cleaning said master disc for magnetic transfer is executed by contacting and  
3 separating the surface of said master disc for magnetic transfer whereon said  
4 magnetic film is formed with and from said dummy disc every after magnetic  
5 transfer to a predetermined number of said magnetic discs.

1           4. The method of magnetic transfer according to claim 1, further comprising  
2 the step of repeating an operation of contacting and separating said master disc for  
3 magnetic transfer with and from said dummy disc for a predetermined number of  
4 times, wherein

5           said step of magnetic transfer is executed by contacting said magnetic disc  
6 and said master disc for magnetic transfer after said step of repeating an operation  
7 of contacting and separating for a predetermined number of times.

1           5. The method of magnetic transfer according to claim 1, further comprising  
2 the step of inspection for detecting a defect in a surface of a disc, wherein

3           an operation of contacting and separating said master disc for magnetic  
4 transfer and said dummy disc is repeated for a predetermined number of times  
5 before magnetic transferring from said master disc for magnetic transfer into said  
6 magnetic disc, when a number of defects equal to or more than a predetermined  
7 number are detected in one of said magnetic disc and said master disc for magnetic  
8 transfer in said step of inspection.

1           6. The method of magnetic transfer according to claim 1, wherein an  
2 operation of contacting and separating said master disc for magnetic transfer with  
3 and from said dummy disc is repeated for a predetermined number of times every  
4 after magnetic transferring to a predetermined number of said magnetic discs.

1           7. The method of magnetic transfer according to one of claims 1 to 6,  
2 wherein said operation of contacting and separating is made by suctioning gas  
3 between said master disc for magnetic transfer and said dummy disc, and by  
4 supplying gas between said master disc for magnetic transfer and said dummy disc.

1           8. The method of magnetic transfer according to one of claims 1 to 6,  
2 wherein hardness of said master disc for magnetic transfer is greater than hardness  
3 of said magnetic disc and said dummy disc.

1           9. The method of magnetic transfer according to one of claims 1 to 6,  
2 wherein hardness of said dummy disc is lower than hardness of said magnetic disc.

1           10. The method of magnetic transfer according to one of claims 1 to 6,  
2 wherein an area for contacting said master disc for magnetic transfer and said  
3 dummy disc includes an area wherein said magnetic transfer is performed from said  
4 master disc for magnetic transfer into said magnetic disc.

1           11. The method of magnetic transfer according to one of claims 1 to 6,  
2 wherein said master disc for magnetic transfer is cleaned by repeating contact and  
3 separation between said master disc for magnetic transfer and said dummy disc not

4 coated with lubricant.

1 12. The method of magnetic transfer according to one of claims 1 to 6,  
2 wherein said dummy disc is formed with a plated film on a surface thereof.

1 13. The method of magnetic transfer according to claim 12, wherein said  
2 plated layer has magnetic property of ferromagnetism.

1 14. A method of magnetic transfer for magnetic transferring a layout pattern  
2 of data signal of a master disc for magnetic transfer into a magnetic disc as a  
3 magnetized pattern of the data signal, by overlapping said master disc for magnetic  
4 transfer on a surface of said magnetic disc, and by magnetizing a magnetic film on  
5 said master disc for magnetic transfer, said master disc for magnetic transfer having  
6 said magnetic film formed thereon in a shape of the layout pattern corresponding to  
7 a predetermined data signal,

8 said method comprising the steps of:

9 repeating an operation of contacting and separating a dummy master disc  
10 with and from said magnetic disc for a predetermined number of times; and

11 magnetically transferring by contacting said master disc for magnetic transfer  
12 with said magnetic disc after said step of repeating.

1 15. The method of magnetic transfer according to one of claims 1 and 14,  
2 wherein said operation of contacting and separating is executed by suctioning gas  
3 between said both discs subject to the close contact and separation, and by

4 supplying gas thereafter.

1 16. The method of magnetic transfer according to claim 15, wherein hardness  
2 of said dummy master disc is lower than hardness of said magnetic disc.

1 17. An apparatus for magnetic transfer for magnetically transferring a pattern  
2 of a magnetic film of a master disc for magnetic transfer into a magnetic disc by  
3 contacting said master disc for magnetic transfer with said magnetic disc, and by  
4 applying an external magnetic field, said master disc for magnetic transfer having  
5 said magnetic film formed on at least one surface thereof,

6 said apparatus comprising:

7 said master disc for magnetic transfer, written therein with a predetermined  
8 data to be transferred;

9 a retainer disposed slidably in position on a guide member for retaining said  
10 master disc for magnetic transfer;

11 a support base provided therein with a vent hole, for supporting one of said  
12 magnetic disc and a dummy disc;

13 a feeding unit for supplying gas into said vent hole provided in said support  
14 base;

15 an exhaust unit for evacuating the gas through said vent hole; and

16 a magnet for applying the magnetic field for magnetic transfer.

1           18. The apparatus for magnetic transfer according to claim 17, wherein said  
2     retainer is provided with a through hole, and said master for magnetic transfer is  
3     retained with said retainer by suctioning the gas via said through hole.

1           19. The apparatus for magnetic transfer according to claim 17, wherein said  
2     master disc for magnetic transfer has a plurality of radially oriented grooves  
3     arranged to extend from a center portion toward a perimeter and in a manner not to  
4     reach to an outermost perimeter thereof.

1           20. The apparatus for magnetic transfer according to claim 17, wherein said  
2     magnetic disc or said dummy disc is provided with an inner peripheral hole, and a  
3     boss is provided at a center portion of said master for magnetic transfer for  
4     engaging with said inner peripheral hole.

1           21. The apparatus for magnetic transfer according to claim 20, wherein said  
2     boss is provided with at least one cut opening in a perimeter thereof.

1           22. The apparatus for magnetic transfer according to claim 17, wherein said  
2     exhaust unit functions to contact said master disc for magnetic transfer with one of  
3     said magnetic disc and said dummy disc, and said feeding unit functions to separate  
4     said master disc for magnetic transfer from one of said magnetic disc and said  
5     dummy disc.